**Anthropogenic Biomes: A New Model for an Old Biosphere**

How did the Biosphere become Anthropogenic?

**Biomes**

- The "classic" biomes characterize the terrestrial biosphere in terms of the global ecological patterns created by human interactions with ecosystems.

**Anthropogenic Biomes**

- Anthropogenic biomes characterize the terrestrial biosphere based on the global ecological patterns created by human interactions with ecosystems.

**Methods**

- **Global analysis at 3 arc-minute resolution**
- **Data Inputs**
  - GLC2000 (GlobCover) from the European Commission
  - CCI-GLFI (Global Forest Change) from the ESA
  - ICASA, LANDSAT, MODIS, and MERIS from NASA
- **Anthrome Classification Model**
  - A classification model was developed to identify anthropogenic biomes.

**Preliminary Results**

- Anthropogenic biomes already predominate in 1700.
- Wildlands already less than 1/3 ice-free land.
- Seminatural anthromes >45% of ice-free land.
- As industry rises, seminatural anthromes are transformed into more densely populated and used anthromes.
- Seminatural anthromes shrink from 45% to <20% of ice-free land.
- Rates of biomes' change have increased over time.
- Historical global land & population models must be interpreted with care.